

XII.—*Notes on a collection of Chiroptera from India and Burma, with descriptions of new species.*—By G. E. DOBSON, M. A.; M. B.;

F. L. S. &c.

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[Of the collections described in the following paper, only a portion of the specimens from Sind were obtained by myself. The other Sind specimens were collected and given to me by Mr. H. E. Watson. For the Travancore collection I am indebted to Col. R. H. Beddome, and the Burmese bats were obtained by Mr. Limborg in the neighbourhood of Moulmain.

W. T. BLANFORD.]

Mr. W. T. Blanford has very kindly sent to me for examination an interesting collection of Chiroptera consisting of specimens obtained in Sind, in the hills near Travancore, and in Burma; representing in all twelve species, whereof I find that two are undescribed.

I.—SPECIES FROM SIND.

1. *Cynopterus marginatus*.

Pteropus marginatus, Geoffroy, Ann. du Museum, XIV, p. 97.

This small species of frugivorous bat is generally distributed throughout India, but has not hitherto, so far as I know, been recorded from Sind.

2. *Scotophilus Temminckii*.

Vespertilio Temminckii, Horsfield, Zoolog. Researches in Java, (1824).

Exceedingly common in India. Specimens of this species are rarely absent from the smallest collections.

3. *Scotophilus pallidus*.

Scotophilus pallidus, Dobson, Monogr. Asiat. Chiropt. p. 186, (1876).

The third specimen of this species as yet obtained. It agrees in structure and in measurements with the type specimen, but the colour of the fur is darker, being light chestnut brown above, and brownish buff beneath, the base of the hairs on both surfaces pale buff.

HAB. Near Shikarpur, Sind.

4. *Vesperugo abramus*.

Vespertilio abramus, Temminck, Monogr. Mammal. II, p. 232, (1835-41).

One specimen of this widely distributed species.

5. *Vesperugo Kuhlii*.

Vespertilio Kuhlii, Natterer, Wetterau. Annal. IV, p. 58, (1817).

Specimens agreeing in the light colour of the fur with others previously obtained by me from the sandy districts of Northern India.

HAB. Shikarpur, Sind.

6. *Vesperugo (Vesperus) nasutus*, n. sp.

Head flat, muzzle conical, the extremity projecting considerably beyond the lower lip in front, as in the species of the genus *Nyctinomus*, terminated by the margins of the nostrils which open sublaterally; ears shorter than the head, triangular, with rounded off tips; the inner margin of the conch commences above the eye and does not form a distinct rounded lobe at its base, but is straight almost from the base to the tip of the ear; the outer margin is also straight and terminates rather abruptly midway between the tragus and the angle of the mouth; tragus much longer than broad, directed slightly inwards, reaching its greatest width about the middle of the inner margin, outer margin convex with an ill-defined lobe near the base, inner margin slightly concave, tip subacutely pointed.

Tail almost wholly contained in the interfemoral membrane, the last rudimentary caudal vertebra alone free; no post-calcaneal lobe; wings from the base of the toes.

Fur short: above, pale yellowish brown; beneath, pale buff, almost white: membranes light brown traversed by numerous white reticulations.

The face is nearly naked in front of the eyes; a few hairs fringe the lips, and the under surface of the projecting extremity of the muzzle; the wing and interfemoral membranes are almost naked.

Upper inner incisors moderately long and unicuspidate, outer incisors very short, but slightly exceeding the cingulum of the inner incisors in vertical extent: lower incisors trifid, crowded, placed across the direction of the jaws: the single upper premolar close to the canine as in *V. serotinus*; the first lower premolar not half the second in vertical extent, with a prominent internal and anterior basal cusp.

Length, head and body 1"·8: tail 1"·7: head 0"·68: ear 0"·6; tragus 0"·25; forearm 1"·45; thumb 0"·25; third finger (metacarp. 1"·3; 1st ph. 0"·48; 2nd ph. 0"·7): fourth finger (metacarp. 1"·3; 1st ph. 0"·4; 2nd ph. 0"·4); fifth finger (metacarp. 1"·3; 1st ph. 0"·28; 2nd ph. 0"·28) tibia 0"·55; foot 0"·28.

HAB. Shikarpur, Sind.

II.—SPECIES FROM TRAVANCORE.

1. *Phyllorhina speoris*.

Vespertilio speoris, Schneider, Schreber, Säugeth. I, pl. 59B.

This species appears to be very generally distributed and in great abundance, in Southern India. Almost all collections from the Deccan contains examples of it. The presence of a small spine-like process at the commencement of the lower third of the outer margin of the ear-conch readily distinguishes the species from all other closely allied forms.

2. *Phyllorhina fulva*.

Hipposideros fulvus, Gray, Mag. Zool. Bot. II, p. 592, (1838).

Almost as common in Southern India as the foregoing species, and very variable in the colour of its fur, in the attachment of the wing-membrane to the posterior extremities, and in the size of the ears.

3. *Megaderma lyra*.

Megaderma lyra, Geoffroy, Ann. du Mus. XV, p. 190, (1810).

This species may be considered characteristic of the Indian and Ceylonese subregions. Its place in Burma is taken by *M. spasma*, L. It is very generally distributed throughout the Indian Peninsula, inhabiting caves, ruined buildings, and the roofs of houses.

4. *Scotophilus Temminckii*, Horsfield.

III.—SPECIES FROM BURMA.

1. *Phyllorhina larvata*.

Rhinolophus larvatus, Horsfield, Zoolog. Researches in Java, (1824).

Specimens agreeing in colour (bright chestnut) with others obtained at Prome, Upper Burma, by Dr. Anderson in 1868. Indian specimens of this species are darker coloured, and many have a bluish tinge.

HAB. Moulmein.

2. *Vesperugo (Hesperoptenus) Tickelli*.

Nycticejus Tickelli, Blyth, J. A. S. B. XX, p. 157.

Hitherto recorded from the Peninsula of India only. The next species is new and belongs to the same subgenus.

HAB. Tenasserim.

3. *Vesperugo (Hesperoptenus) Blanfordi*, n. sp.

Head very flat and broad; muzzle obtusely conical; nostrils opening widely apart by semi-lunate apertures, the margins of which are level with the extremity of the muzzle: ears short, triangular in outline, with broadly rounded off tips; upper half of the outer margin of the ear-conch straight, then convex, slightly concave opposite the base of the tragus, terminating abruptly in a deep lobe closer to the angle of the mouth than to the base

of the tragus ; tragus narrowest opposite the base of its inner margin, expanded above and curved inwards.

Thumb short with a very acute claw ; *a broad adhesive cushion occupies the base of the inferior surface of the metacarpal bone* and extends outwards and backwards upon the base of the metacarpal of the second finger.

Feet very small, the sole of the foot apparently adhesive but not expanded as in *V. pachypus* ; post-calcaneal lobe remarkably large, (probably proportionately larger than in any other species of bat,) and broader than the foot, with a central cartilaginous prop: the extreme tip of the tail alone projecting.

Fur dark reddish-brown above, slightly paler beneath. *Penis with a distinct bone*, in shape quite similar to that of *V. Tickelli*, and with a similar prepuce.*

Dentition almost similar to that of *V. Tickelli*, the outer upper incisors are even smaller and placed more behind the inner incisors ; the inner incisors unicuspidate and very acutely pointed ; lower incisors trifid, and placed in the direction of the jaws ; the single upper premolar close to the canine ; the first lower premolar with a very short and obtuse cusp, the second equals three-fourths the canine in vertical extent.

Length, head and body, 1"·75 ; tail 1"·1 ; head 0"·6 ; ear 0"·45 ; tragus 0"·18 ; forearm 1"·1 ; thumb 0"·15 ; third finger (metacarpal 1"·0 ; 1st ph. 0"·6 ; 2nd ph. 0"·6) ; fourth finger (metacarp. 1"·0 ; 1st ph. 0"·53 ; 2nd ph. 0"·28) ; fifth finger (metacarp. 0"·95 ; 1st ph. 0"·35 ; 2nd ph. 0"·22) ; tibia 0"·45 ; foot 0"·25.

HAB. Tenasserim.

This species is about the size of *Vesperugo (Vesperus) minutus*. Temm. from South Africa, and is, therefore, one of the smallest species of the genus. It is not half the size of *V. Tickelli*, with which it agrees in other respects so closely. Its resemblance to that species in the position of the upper outer incisors, and in the form of the penis, which has a distinct bone, is very remarkable.

XIII.—Description of *Spiraculum Mastersi*,—By W. T. BLANFORD, F. R. S., &c.

The shell described below was collected with several others in 1860 by Mr. Masters in the hills south of the Assam Valley, not far from Golaghât. I described all the species, but the paper was never published. Some of

* See description of *V. Tickelli* in Monogr. Asiat. Chiropt. p. 114.